

Atty's Docket: 101195-67

IN THE CLAIMS

Amend claims as shown below; cancel claims 7-8. Add new claims 11-13.

1 (Currently amended) ~~Method~~ A method for detecting the effect of different chemotherapeutic agents and/or radiation in malignant diseases by determining the expression levels of the p53 gene and/or variants thereof, comprising the steps,

- (a) collecting cells and/or tissue from a subject with a malignant disease,
- (b) determining the expression of the p53 gene or variants thereof by analysis of p53-specific RNA, in a portion of the cells and/or tissue,
- (c) placing into culture an additional portion of the cells and/or tissue, and treating the cultured cells and/or tissue with one or more cytostatic compounds and/or radiation treatments,
- (d) determining the expression profile of the p53 gene or variants thereof, in the cells and/or tissues by analysis of p53-specific RNA, and, assigning an observed change in the treated cells' and /or tissue's expression profile to the corresponding treatment with one or more cytostatic compounds and/or radiation, and
- (e) comparing the expression profile obtained in step (b) with an expression profile of step (d) and based on the comparing, selecting one or more cytostatic compounds and/or radiation treatments for administering to the subject.

wherein the expression profiles of apoptosis-regulating and/or cell-growth-regulating genes and/or individual differences (mutations) in the gene sequences is determined

Atty's Docket: 101195-67

and the changes associated with chemotherapeutic agents and/or radiation therapy are identified, represented and diagnostically evaluated.

2. (Currently amended) Method A method in accordance with claim 1, wherein the expression profiles of one or more additional genes are determined, the additional genes being selected from the group consisting of the Bcl-2 family, preferably Bax, p53, p16, caspases, Rb, cyclins, inhibitors of cyclin-dependent kinases (CDKIs), ATM and inhibitors of apoptosis proteins (IAPs), and/or mutations/variants thereof in the genes are determined using protein or DNA/RNA analyses and evaluated singly or in various combinations.

3. (Currently amended) Method A method in accordance with claim 1, wherein individual differences in the sequence of apoptosis and/or cell growth-regulating genes and/or the their expression profiles of their gene products, which occur in malignant diseases, are related-correlated with the apoptosis and/or cell growth-regulating genes' to an individually different responsiveness to drugs-cytostatic compounds and/or radiation, and are evaluated, particularly with regard to their relevance to the response to therapy.

4. (Currently amended) Method for selecting more efficacious therapeutic agents for the treatment of malignant diseases, wherein the status-expression profiles of one or more cell cycle genes and/or of apoptosis-associated target genes or of their gene products thereof, in body fluids, cells or organs are determined ex vivo and the more efficacious agents for this status are selected.

5. (Currently amended) Method A method in accordance with claim 4, wherein agents

PAGE 4/4 \* RCVD AT 10/3/2004 1:27:37 PM [Eastern Daylight Time] \* SVR:USPTO-EFXXRF-1/0 \* DNIS:8729306 \* CSID:212 448 9373 \* DURATION (mm:ss):01:24,